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EXAMINER

WHIPPLE, BRIAN P

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/717,176	Applicant(s) NAVAR ET AL.	
	Examiner Brian P. Whipple	Art Unit 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/13/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-29 are pending in this application and presented for examination.

Claim Objections

2. As to claim 12, the examiner is unclear of the meaning of “said first peer is accessed by said peer-to-peer network”. A peer being accessed by a network could mean either individual peers in the network accessing the first peer, the network as a whole accessing the peer, or some other meaning unknown to the examiner. Furthermore, the network as a whole accessing the first peer, wherein the first peer is itself a part of the network, is not clearly defined to the examiner. It may have been intended for the meaning of this phrase to be “said first peer is accessed by **at least one of said peers, in said list of peers, in** said peer-to-peer network” or some similar phrasing. Clarification is respectfully requested.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2152

4. Claims 14-20 and 26-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. As to claim 14, the phrase “said peers” lacks antecedent basis.

6. As to claim 26, the phrase “said channel” lacks antecedent basis.

7. As to claims 27-28, the phrase “said asset” lacks antecedent basis.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

9. Claims 1-3 and 7-11 are rejected under 35 U.S.C. 102(a) as being anticipated by Jones et al. (Jones), U.S. Publication No. 2002/0198930 A1.

10. As to claim 1, Jones discloses a method for operating a client to retrieve desired content (Fig. 4, item 402), said method comprising:

checking availability of said desired content (Fig. 4, item 404; [0031], ln. 1-10, a check is made to see if the requested file piece is available from another client in the peer-to-peer network) from other clients (Fig. 4, item 406; [0031], ln. 7-10) on a peer-to-peer network (Fig. 1; [0007], ln. 1-3 and 7-9, “client then functions as a peer-to-peer server and downloads the requested file piece to the second client”);

if said content is available from at least one of said other clients (Fig. 4, item 404; [0031], ln. 1-4), retrieving said content from at least one of said other clients via said peer-to-peer network (Fig. 4, item 406; [0031], ln. 7-10); and

if said content is not available from at least one of said other clients ([0031], ln. 4-7), retrieving said content from a content server of said peer-to-peer network (Fig. 4, item 405; [0031], ln. 4-7).

11. As to claim 2, Jones discloses retrieving said content from at least one of said other clients (Fig. 4, item 406; [0031], ln. 7-10) comprises:

retrieving a first portion of said content from a first other client of said peer-to-peer network ([0030], ln. 5-11); and

retrieving a second portion of said content from a second other client of said peer-to-peer network ([0033], ln. 2-11).

12. As to claim 3, Jones discloses said content server feeds said content into said peer-to-peer network ([0030], ln. 5-11; [0033], ln. 2-11; master server breaks a large file into pieces and feeds it to clients in the peer-to-peer network, the clients in turn providing the pieces to other clients).

13. As to claim 7, Jones discloses said desired content is retrieved as a plurality of packets ([0017], ln. 1-4, the Internet and TCP/IP are packet-based).

14. As to claim 8, Jones discloses prior to retrieving said desired content from at least one other client ([0031], ln. 1-4), retrieving a header associated with said plurality of packets from said content server ([0031], ln. 7-10; in order to redirect the client to a peer-to-peer server, a destination address of peer-to-peer server must be known, destination addresses known to be contained in the header of packets), said header comprising information identifying said packets ([0031], ln. 7-10; headers are known to contain an identification field; in order to identify the content to be downloaded from the peer-to-peer server by the

client, the master server must not only identify the destination address of the peer-to-peer server, it must also identify the content to be downloaded from the peer-to-peer server).

15. As to claim 9, Jones discloses verifying reception of said plurality of packets ([0035], ln. 3-8); and

if one of said plurality of packets has been corrupted in reception, repeating retrieval of said corrupted packet ([0037], ln. 4-12, “the client can determine which piece of the file needs to be retransmitted”).

16. As to claim 10, Jones discloses verifying reception of said plurality of packets ([0035], ln. 3-8); and

if one of said plurality of packets has been corrupted in reception ([0035], ln. 3-8, “the clients can accurately tell if any of the peer-to-peer servers have corrupted their respective file pieces”), retrieving an uncorrupted packet from another source ([0037], ln. 4-12, “the master server can then retransmit the necessary file piece”) and replacing said corrupted source packet with said uncorrupted packet ([0037], ln. 4-12).

17. As to claim 11, Jones discloses a method for operating a peer-to-peer network (Fig. 1; [0007], ln. 1-3 and 7-9, “client then functions as a peer-to-peer server and downloads the requested file piece to the second client”), said method comprising:

sending a list of peers ([0033], ln. 2-11; 650 clients attempt to connect to the master server, but the master server only facilitates downloads directly for 65 of the clients, the remaining clients are served by a peer, wherein each peer is given a list of ten clients to service) from a content broker ([0033], ln. 2-11, “master server”) to a first peer ([0033], ln. 2-11, “first 65 machines”) in a peer-to-peer network (Fig. 1; [0007], ln. 1-3 and 7-9, “client then functions as a peer-to-peer server and downloads the requested file piece to the second client”); and

employing a push method ([0033], ln. 2-11; the first 65 clients are instructed to send content to the remaining peers, clearly this is a push method, because the initial 650 clients all attempt to contact the server through a pull method, only thereafter is the method of having 65 of those clients serve as peer-to-peer servers set up by the server) to send content ([0033], ln. 2-11, “attempt to download the same 650-MB file... receive a piece of the file and share it...”) from said first peer ([0033], ln. 2-11, “first 65 machines... share it...”) to a second peer ([0033], ln. 2-11, “share it with at least ten other client machines.”) belonging to said list of peers ([0033], ln. 2-11, each of the first 65 machines has a list of ten other client machines to share their respective file with).

18. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

19. Claims 1 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Pinho et al. (Pinho); GloVE: A Distributed Environment for Low Cost Scalable VoD Systems*; 28-30 Oct.2002; IEEE; Proceedings of the 14th Symposium on Computer Architecture and High Performance Computing.

20. As to claim 1, Pinho discloses a method for operating a client to retrieve desired content (Abstract, ln. 1-5), said method comprising:

checking availability of said desired content from other clients on a peer-to-peer network (Page 2, paragraph 5, ln. 8-10, “client become video content providers of other clients”; Page 3, Fig. 2; Page 3, right column, “2. If in the moment that a second client issues a request the first video block remains in its local buffer, it will become the provider of a new multicast group composed initially by the requester.”);

if said content is available from at least one of said other clients, retrieving said content from at least one of said other clients via said peer-to-peer network (Page 2,

paragraph 5, ln. 8-10, “client become video content providers of other clients”; Page 3, Fig. 2; Page 3, right column, “2. If in the moment that a second client issues a request the first video block remains in its local buffer, it will become the provider of a new multicast group composed initially by the requester.”); and

if said content is not available from at least one of said other clients, retrieving said content from a content server of said peer-to-peer network (Page 3, Fig. 2; Page 4, left column, ln. 1-2, “Otherwise, the server starts a new stream to the client.”).

21. As to claim 11, Pinho discloses a method for operating a peer-to-peer network (Page 2, paragraph 5, ln. 8-10, “client become video content providers of other clients”; Page 3, Fig. 2; Page 3, right column, “2. If in the moment that a second client issues a request the first video block remains in its local buffer, it will become the provider of a new multicast group composed initially by the requester.”), said method comprising:

sending a list of peers (Page 3, section 2.1, paragraph 3, ln. 1-9; the manager gives an earlier client a multicast list of peers) from a content broker (Page 3, section 2.1, paragraph 3, ln. 1-9, “the manager”) to a first peer (Page 3, section 2.1, paragraph 3, ln. 1-9, “an earlier client”) in a peer-to-peer network (Page 2, paragraph 5, ln. 8-10, “client become video content providers of other clients”; Page 3, Fig. 2; Page 3, right column, “2. If in the moment

that a second client issues a request the first video block remains in its local buffer, it will become the provider of a new multicast group composed initially by the requester.”); and

employing a push method (Page 3, section 2.1, paragraph 3, ln. 1-9; the manager receives a pull request from a client, but instead uses a push method to instruct an earlier client to multicast its stream to requesting clients; Page 3, Fig. 2) to send content (Page 3, section 2.1, paragraph 3, ln. 1-9, “a given video”) from said first peer (Page 3, section 2.1, paragraph 3, ln. 1-9, “an earlier client”) to a second peer (Page 3, section 2.1, paragraph 3, ln. 1-9, “a client requests a given video... create a new chain establishing a new complete multicast stream from an earlier client”) belonging to said list of peers (Page 3, section 2.1, paragraph 3, ln. 1-9; the manager gives an earlier client a multicast list of peers; Page 3, Fig. 2).

22. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

23. Claims 22, 25-26, and 28-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Humphrey et al. (Humphrey), U.S. 2004/0003039 A1.

24. As to claim 22, Humphrey discloses a method for operating a publisher server to distribute content (Fig. 5, item 514; [0059], ln. 9-12), said method comprising:

preparing said content for distribution ([0059], ln. 9-12; [0061], ln. 1-4; content contributors edit or add content and submit changes to the content submission server);

transferring said content to a content server (Fig. 5, items 510 a and 510 b; [0063], ln. 1-4; the content repository contains the files submitted to the content submission server by authorized content contributors, therefore the content repository is a content server); and

transferring information identifying said content to a catalog server (Fig. 5, items 206, 510 a, and 510 b; [0061], ln. 1-4; content contributors submit modifications to the content index via the content submission server; [0063], ln. 1-4; content submissions are transferred to the content repository, the content repository delivers files referred to by the content index; [0066], ln. 5-7; the LPG distributes a catalog, and is therefore a catalog server; [0066], ln. 7-9; all information, including information identifying said content to a catalog server flows through the LPG to the limited client, as the LPG is acting as a proxy); and

wherein clients retrieve said content either directly or indirectly from said content server after retrieving said identifying information from said catalog server ([0063], ln. 4-8).

25. As to claim 25, Humphrey discloses said information identifying said content (Fig. 5, items 206, 510 a, and 510 b; [0061], ln. 1-4; content contributors submit modifications to the content index via the content submission server; [0063], ln. 1-4; content submissions are transferred to the content repository, the content repository delivers files referred to by the content index; [0066], ln. 5-7; the LPG distributes a catalog, and is therefore a catalog server; [0066], ln. 7-9; all information, including information identifying said content to a catalog server flows through the LPG to the limited client, as the LPG is acting as a proxy) comprises information identifying a channel to which said content belongs ([0058], ln. 8-10, “individual content index entries can fit into one of several categories such as patches, game content updates or news”).

26. As to claim 26, Humphrey discloses said channel comprises an asset ([0058], ln. 8-10, “individual content index entries can fit into one of several categories such as patches, game content updates or news”).

27. As to claim 28, Humphrey discloses said asset is a news program ([0058], ln. 8-10, “individual content index entries can fit into one of several categories such as... news”).

28. As to claim 29, Humphrey discloses prior to preparing said content, retrieving said content from a content source ([0059], ln. 9-12; [0061], ln. 1-4; content contributors edit or add content and submit changes to the content submission server, the content must be retrieved from either a human user or computer system).

Claim Rejections - 35 USC § 103

29. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

30. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones, in view of Pitkin et al. (Pitkin), U.S. Patent No. 5,341,477.

31. As to claim 4, Jones discloses the invention substantially as in parent claim 1, including a master server selects a peer-to-peer server based on availability ([0034], ln. 3-13), but is silent on a content broker selects said content server based on at least one of cost and availability.

However, Pitkin discloses a content broken selects a content server based on availability (Abstract, ln. 1-4 and 9-13, “available resource capacity”).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Jones by including a content server to select a content server based on availability as taught by Pitkin in order to suggest the best server based on network policy and available resource capacity (Pitkin: Abstract, ln. 9-13).

32. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones, in view of Shteyn, U.S. Publication No. 2002/0116471 A1.

33. As to claim 5, Jones discloses the invention substantially as in parent claim 1, including said desired content (Fig. 4, item 403), but is silent on said desired content is a song.

However, Shteyn discloses desired content is a song ([0016], ln. 3-9, “songs”).

Furthermore, Shteyn also discloses the use of peer-to-peer networking as the broadcasting system for content material ([0004], ln. 3-8, “peer-to-peer network”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Jones by including songs as desired content as

taught by Shteyn as songs are one of the most sought after types of media on the Internet, especially in peer-to-peer environments such as Napster, etc.

34. As to claim 6, Jones discloses the invention substantially as in parent claim 1, including said desired content (Fig. 4, item 403), but is silent on said desired content is a song.

However, Shteyn discloses desired content is a news program ([0016], ln. 3-9, “sports events, news stories, entertainment programs”).

Furthermore, Shteyn also discloses the use of peer-to-peer networking as the broadcasting system for content material ([0004], ln. 3-8, “peer-to-peer network”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Jones by including news programs as desired content as taught by Shteyn as news is a commonly distributed genre of media on the Internet.

Additionally, the definition of a news program is quite broad. The posting of radio shows, television shows, posts with information, etc. all could fall in the heading of news programs. Users in peer-to-peer environments share a wide variety of information and are known to share speeches, news excerpts or “sound bites”, etc.

35. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones, in view of Takeda et al. (Takeda), U.S. Publication No. 2004/0139228 A1.

36. As to claim 12, Jones discloses the invention substantially as in parent claim 11, including said first peer is accessed by said peer-to-peer network (Fig. 1; [0007], ln. 1-3 and 7-9, “client then functions as a peer-to-peer server and downloads the requested file piece to the second client”), but is silent on said first peer is accessed by said peer-to-peer network via a network address translation mechanism.

However, Takeda discloses said first peer is accessed by said peer-to-peer network via a network address translation mechanism ([0102], ln. 5-7 and 10-13).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Jones by accessing the peer-to-peer network via a network address translation mechanism as taught by Takeda in order to allow multiple users to share a single IP address (Takeda: [0002], ln. 5-8) in order to address the problem of having a limited number of IP addresses available under the current high demand for IP addresses (Takeda: [0002], ln. 3-5).

37. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones, in view of Jones et al. (Jones II), U.S. Publication No. 2002/0198929 A1.

38. As to claim 13, Jones discloses the invention substantially as in parent claim 11, including said first peer ([0033], ln. 2-11, “first 65 machines”) and the master server monitoring available downloading bandwidth ([0032], ln. 1-4 and 7-9, “potential bandwidth added by those servers... the greater the load, the smaller the pieces given from the master server and the greater the dependency on the peer-to-peer servers”) and initiating transfer of content pursuant to said push method when excess downloading bandwidth is unavailable at the master server ([0032], ln. 1-4 and 7-9, “potential bandwidth added by those servers... the greater the load, the smaller the pieces given from the master server and the greater the dependency on the peer-to-peer servers”), but is silent on said first peer monitors available downloading bandwidth and initiates transfer of content pursuant to said push method when excess downloading bandwidth is available.

However, Jones II discloses said first peer monitors available downloading bandwidth ([0030], “clients would be allowed to delegate... bandwidth limits”) and initiates transfer of content pursuant to said push method when excess downloading bandwidth is available ([0030]; a bandwidth limit causes peer-to-peer sharing to limit further content delivery once a bandwidth limit is reached; such a limit prevents connections at this point, and limits the transfer rate of the current connections to the bandwidth limit).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Jones by enabling said first peer to monitor available downloading bandwidth and initiate transfer of content pursuant to said push method when excess downloading bandwidth is available as taught by Jones II in order to allow a user to specify a bandwidth limit (Jones II: [0030], “clients would be allowed to delegate... bandwidth limits”) in order to prevent a undesirably high amount of bandwidth being devoted to peer-to-peer sharing, which would limit the user’s ability to adequately engage in other activities requiring bandwidth.

Such a proposed modification would be even more obvious in light of the fact that both cited references are by Jeffrey Allen Jones and Douglas Scott Rothert filed on the same date of June 25, 2001 and both are assigned to International Business Machines Corporation. Therefore, modifying Jones with Jones II would be extremely obvious to one of ordinary skill in the art.

39. Claims 14 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones, in view of Shareaza; 5/27/03.

40. As to claim 14, Jones discloses a method for operating a content distribution network (Fig. 1; [0007], ln. 1-3 and 7-9, “client then functions as a peer-to-peer server and downloads the requested file piece to the second client”), said method comprising:

sending each of said plurality of clients list information to identify network peers of said peers ([0033], ln. 2-11; 650 clients attempt to connect to the master server, but the master server only facilitates downloads directly for 65 of the clients, the remaining clients are served by a peer, wherein each peer is given a list of ten clients to service), said list information identifying at least one dedicated content server and at least one client peer ([0033], ln. 2-11; “master server” and “client machines”; [0034], ln. 3-13, “list of peer-to-peer mirrors”).

Jones is silent on assigning a plurality of clients to a plurality of peer-to-peer networks; and

distributing content via said plurality of peer-to-peer networks.

However, Jones defines assigning a plurality of clients to a single peer-to-peer network (Fig. 1; [0007], ln. 1-3 and 7-9, “client then functions as a peer-to-peer server and downloads the requested file piece to the second client”; [0033], ln. 2-11, “share it with at least ten other client machines.”); and

distributing content via said single peer-to-peer network ([0031], ln. 1-10).

Jones is only silent on a plurality of peer-to-peer networks. However, clearly the network of Jones may be established multiple times at multiple sites. It is known in the field of computer networking to replicate systems and methods at multiple locations.

Additionally, Shareaza discloses assigning a plurality of clients to a plurality of peer-to-peer networks (Right column, section “What is Shareaza?”, “Shareaza is a Peer-to-Peer client for Windows which allows you to download files of any type found on several popular P2P networks.”); and

distributing content via said plurality of peer-to-peer networks (Right column, section “What is Shareaza?”, “Shareaza is a Peer-to-Peer client for Windows which allows you to download files of any type found on several popular P2P networks.”).

Interconnecting a plurality of peer-to-peer networks has the clear benefit of widening the amount of files available to a client. Additionally, files replicated across multiple peer-to-peer networks may be downloaded simultaneously from every available network (Shareaza: Left column, paragraph 2, “When downloading a file, it can be swarmed from all connected networks simultaneously”). The ability to swarm from multiple networks increases the availability of files and increases download speed.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Jones by including a plurality of peer-to-peer networks,

as opposed to a single peer-to-peer network, as taught by Shareaza in order to gain the aforementioned benefits (see the preceding paragraph).

41. As to claim 21, Jones discloses a method for operating a content distribution network (Fig. 1; [0007], ln. 1-3 and 7-9, “client then functions as a peer-to-peer server and downloads the requested file piece to the second client”), said method comprising:

sending each of said plurality of clients list information to identify network peers of said clients ([0033], ln. 2-11; 650 clients attempt to connect to the master server, but the master server only facilitates downloads directly for 65 of the clients, the remaining clients are served by a peer, wherein each peer is given a list of ten clients to service); and

refreshing said list over time to include only available peers (Fig. 5, item 505; [0034], ln. 3-13, “The master server then removes the down peer-to-peer server from the list of peer-to-peer mirrors”).

Jones is silent on assigning a plurality of clients to a plurality of peer-to-peer networks.

However, Jones defines assigning a plurality of clients to a single peer-to-peer network (Fig. 1; [0007], ln. 1-3 and 7-9, “client then functions as a peer-to-peer server and downloads the requested file piece to the second client”; [0033], ln. 2-11, “share it with at least ten other client machines.”)

Jones is only silent on a plurality of peer-to-peer networks. However, clearly the network of Jones may be established multiple times at multiple sites. It is known in the field of computer networking to replicate systems and methods at multiple locations.

Additionally, Shareaza discloses assigning a plurality of clients to a plurality of peer-to-peer networks (Right column, section “What is Shareaza?”, “Shareaza is a Peer-to-Peer client for Windows which allows you to download files of any type found on several popular P2P networks.”).

Interconnecting a plurality of peer-to-peer networks has the clear benefit of widening the amount of files available to a client. Additionally, files replicated across multiple peer-to-peer networks may be downloaded simultaneously from every available network (Shareaza: Left column, paragraph 2, “When downloading a file, it can be swarmed from all connected networks simultaneously”). The ability to swarm from multiple networks increases the availability of files and increases download speed.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Jones by including a plurality of peer-to-peer networks, as opposed to a single peer-to-peer network, as taught by Shareaza in order to gain the aforementioned benefits (see the preceding paragraph).

42. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones and Shareaza as applied to claim 14 above, and further in view of Pitkin.

43. As to claim 15, Jones and Shareaza disclose the invention substantially as in parent claim 14, including said list information ([0034], ln. 3-13, “list of peer-to-peer mirrors”), but are silent on said list information comprises a plurality of dedicated content servers ranked by priority.

However, Pitkin discloses list information comprising a plurality of dedicated content servers ranked by priority (Col. 11, ln. 51-52, “multiple server lists having different priorities”).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Jones and Shareaza ranking a plurality of dedicated content servers by priority as taught by Pitkin in order to first attempt to connect to most desired servers and then, if the most desired servers are unavailable, attempt to connect to less desired servers without the need for user intervention (Pitkin: Col. 11, ln. 54-60).

44. Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones, Shareaza, and Pitkin as applied to claim 15 above, and further in view of O’Toole, Jr. (O’Toole), U.S. Patent No. 7,320,131 B1.

45. As to claim 16, Jones, Shareaza, and Pitkin disclose the invention substantially as in parent claim 15, including said priority ranking (Col. 11, ln. 51-52, “multiple server lists having different priorities”), but are silent on said priority ranking is based on cost.

However, O’Toole discloses a priority ranking based on cost (Abstract, ln. 3-11; Col. 6, ln. 59-62).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Jones, Shareaza, and Pitkin by ranking priority based on cost as taught by O’Toole in order to choose servers that can handle requests in a cost-efficient manner (O’Toole: Col. 6, ln. 59-62).

46. As to claim 17, Jones, Shareaza, and Pitkin disclose the invention substantially as in parent claim 15, including said priority ranking (Col. 11, ln. 51-52, “multiple server lists having different priorities”), but are silent on said priority ranking is based on available bandwidth.

However, O’Toole discloses a priority ranking based on available bandwidth (Abstract, ln. 3-11; Fig. 2A; Fig. 3C; Col. 13, ln. 25-35, “generates a usage metric... such as the bandwidth level...”; Col. 13, ln. 51-58, “chooses one of the resources... to respond to the request... by comparing the economic metric for each resource... e.g. select a server by

comparing the cost estimates”; the available servers are ranked based on cost estimates, the cost estimates being, at least in part, based on bandwidth usage).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Jones, Shareaza, and Pitkin by ranking priority based on available bandwidth as taught by O’Toole in order to choose servers that can handle requests in a cost-efficient manner (O’Toole: Col. 6, ln. 59-62), cost being reliant upon bandwidth usage (O’Toole: Col. 2, ln. 3-5).

47. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones, Shareaza, and Pitkin as applied to claim 15 above, and further in view of Ishida et al. (Ishida), U.S. Publication No. 2002/0116479 A1.

48. As to claim 18, Jones, Shareaza, and Pitkin disclose the invention substantially as in parent claim 15, including said priority ranking (Col. 11, ln. 51-52, “multiple server lists having different priorities”), but are silent on said priority ranking varies over time of day.

However, Ishida discloses a priority ranking (Abstract, ln. 4-6; Fig. 3, “HIGH-LEVEL SERVERS” and “GENERAL-LEVEL SERVERS”) that varies over time of day ([0104], ln. 1-8).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Jones, Shareaza, and Pitkin by varying a priority

ranking over time of day as taught by Ishida in order to balance the loads of servers of different levels in proportion to the number of corresponding requests for each level ([0104], ln. 1-8; [0105], ln. 4-6 and 10-15).

49. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones and Shareaza as applied to claim 14 above, and further in view of Humphrey.

50. As to claim 19, Jones and Shareaza disclose the invention substantially as in parent claim 14, including assigning (Jones: Fig. 1; [0007], ln. 1-3 and 7-9, “client then functions as a peer-to-peer server and downloads the requested file piece to the second client”; [0033], ln. 2-11, “share it with at least ten other client machines.”; Shareaza: Right column, section “What is Shareaza?”, “Shareaza is a Peer-to-Peer client for Windows which allows you to download files of any type found on several popular P2P networks.”), but are silent on assigning comprises assigning based on content interest profiles of said clients.

However, Humphrey discloses assigning comprises assigning based on content interest profiles of said clients ([0008]; [0013]; [0043], ln. 12-15, “homogenous grouping wherein all members are servers or game hosts for a single game title”; [0052], ln. 1-3, “client systems... connect to the session cloud”).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Jones and Shareaza by assigning based on content interest profiles of clients as taught by Humphrey in order to enable the updating of content material relevant to a peer group, updates such as patches and news information (Humphrey: [0013]).

51. As to claim 20, Jones and Shareaza disclose the invention substantially as in parent claim 14, including said list information identifying a dedicated content server ([0033], ln. 2-11; “master server” and “client machines”; [0034], ln. 3-13, “list of peer-to-peer mirrors”), but are silent on said list information identifies a plurality of dedicated content servers selected based on availability of specific content.

However, Humphrey discloses list information identifies a plurality of dedicated content servers ([0040], ln. 5-7; [0043], ln. 12-15) selected based on availability of specific content ([0043], ln. 12-15, “homogenous grouping wherein all members are servers or game hosts for a single game title”).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Jones and Shareaza by having the list information identify a plurality of dedicated content servers selected based on availability of specific content as taught by Humphrey in order to enable the updating of content material relevant

to a group of dedicated content servers, updates such as patches and news information (Humphrey: [0013]).

52. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Humphrey, in view of Stamos et al. (Stamos), U.S. Patent No. 7,100,047 B2.

53. As to claim 23, Humphrey discloses the invention substantially as in parent claim 22, including preparing said content ([0059], ln. 9-12; [0061], ln. 1-4; content contributors edit or add content and submit changes to the content submission server), but is silent on encrypting said content.

However, Stamos discloses encrypting said content (Col. 10, ln. 64 – Col. 11, ln. 5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Humphrey by encrypting content as taught by Stamos in order to protect sensitive information (Col. 11, ln. 1-5).

54. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Humphrey, in view of Demetrescu et al. (Demetrescu), U.S. Patent No. 6,987,813 B1.

55. As to claim 24, Humphrey discloses the invention substantially as in parent claim 22, including formatting said content as a file ([0063], ln. 1-4), said file comprising a header and a plurality of packets ([0058], ln. 8-10; game content updates and patches will be over the maximum transmission unit for a TCP/IP packet, at least a vast majority of the time, since the maximum transmission unit is typically only 1500 bytes for IPv4; [0063], ln. 1-4; any file over the maximum segment size for a FTP or HTTP packet will be sent in a plurality of packets, each packet comprising a header).

Humphrey clearly discloses a file comprising a header and a plurality of packets, because the term comprising differs from consisting in that comprising does not limit the terms following it to those terms alone. Therefore, a file consisting of a plurality of headers and an equal number of packets is a file comprising a header (because is at least one header) and a plurality of packets. For the purposes of expedited prosecution, the examiner will also reject a single header and a corresponding plurality of packets.

Demetrescu discloses a single header and a corresponding plurality of packets (Abstract, ln. 1-6, “at least two packets and only one of the associated header portions”).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Humphrey by associating a single header with a plurality of packets as taught by Demetrescu in order to limit transmission, which consumes resources, by limiting the amount of header traffic on a network.

56. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Humphrey, in view of Shteyn.

57. As to claim 27, Humphrey discloses the invention substantially as in parent claim 22, including said asset ([0058], ln. 8-10, "individual content index entries can fit into one of several categories such as patches, game content updates or news"), but is silent on said asset is a song.

However, Shteyn discloses an asset that is a song ([0016], ln. 3-9, "songs").

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Humphrey by including songs as assets as taught by Shteyn as songs are one of the most sought after types of media on the Internet, especially in peer-to-peer environments such as Napster, etc.

Conclusion

58. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See the Notice of References Cited (PTO-892).

59. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian P. Whipple whose telephone number is (571)270-1244.

The examiner can normally be reached on Mon-Fri (8:30 AM to 5:00 PM EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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